

Voting Systems Availability : Long Queue, Frustrated Voter, Voters Turned back after long-wait

Method: Inadequate number of voting systems in a given precinct due to intentional limited provisioning of voting places or voting equipment or inadvertent (or malicious) breakdown of some equipment during voting. This could either lead to long lines, voters not being able to vote after cut-off period or voters leaving out of frustration. This naturally leads to voter disenfranchisement resulting in an election that does not reflect the true voting demography.

Taxonomy

Retail : Inadvertent system error could disenfranchise a few voters

Wholesale : A systemic attack could disenfranchise a whole precinct resulting in a loss of large vote chunks.

Applicability : All voting Systems

Potential Gain: Since many precinct vote along party lines, targeted availability attack could tilt the election in favor of a predetermined party or candidate or issue.

Likelihood of Detection : Obvious problem during election as the voter frustration and lines are apparent. Also proper , bi-partisan planning could illuminate the likelihood of inadequate resources in a given precinct. Impact of unexpected events or intentional bug in voter system that could render them inoperable on election day is more difficult to identify prior to election and the cause of unavailability (due to bugs) could

Counter Measures

Planning and provisioning for Redundancy in equipment and voting place size. Bi-Partisan diligence during planning and Implementation stages. Software Reviews for bugs and use of integrity checking tools to identify changes to configurations including date changes to test for timed-bombs in software.

Extending Voting Period and or Providing for Remote Electronic Voting and Related Technologies to mitigate the impact of a single-point of failure

Retrospective Notes : Several precincts in Ohio had similar problems during the 2004 elections with many voters being forced to wait in-line for an extended period, others turned back after election cut-off time or simply leaving after a long wait. Many have argued that an extended election period could potentially increase election turn out. Alexander Trechsel and co. discussed Switzerland's experience in their contributed paper, **Remote Voting Via the Internet** in Dimitris Gritzalis' edited volume, [Secure Electronic Voting \(Kluwer Academic Publishing\)](#)